Office Action Summary	Application No.	Applicant(s)	
	10/030,202	JANSSENS ET AL.	
	Examiner	Art Unit	
	Kahsay Habte, Ph. D.	1624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *9/3/2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6,8-10,13-15 and 18-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-2, 4, 8-10,13-15 and 18-21* is/are rejected.

7)☒ Claim(s) *3 and 6* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-4, 6, 8-10, 13-15 and 18-21 are pending.

2. The amendment submitted on 5/27/2004 is entered.

3. In view of the appeal brief filed on August 3, 2004, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below (see 4-6).

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Objection

Claims 3 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated over Janssens et al. (US Pat No. 5,360,807). Cited reference discloses many benzimidazole derivatives of interest. Specifically, on columns 24-30 (TABLE 2) compounds 1-6, 8, 12-16, 20-21, 30-31, 35-37 and 42-43 are the same as applicants when applicants Formula (I) has the following substituents:

R^1 = 2-methyl-4-thiazolyl or 6-methyl-2-pyridinyl; G = CH_2; Q = is piperidinyl (see choice b-5 where v=2, X^1 = NH, O or CH_2, Y^1 is NH, NCH_3, or N substituted by substituents of variable R^2).

On column 19 (lines 25-27), it has been disclosed that the compounds of formula (I) are useful in the treatment of broad range of allergic diseases such as allergic rhinitis, allergic conjunctivitis, chronic urticaria, asthma an the like. Further, on column 19 (lines 28-35) it has been disclosed: "In view of their useful antiallergic properties the subject may be formulated into various pharmaceutical forms for administration purposes. To prepares the antilallergic compositions of this invention, an effective amount of the particular compound, in a base or acid addition salt form, as the active ingredient is combined in intimate admixture with a pharmaceutical acceptable carrier. This is the same as the method recited in applicant's claim 1 i.e. method of manufacturing a medicament. Note that the claim language "for the treatment of respiratory syncytial viral infection" has no patentable weight, since it is an intended use of the medicament or composition. Note that a method of manufacturing a medicament is not different from a method of formulating a composition. Whether or not the

composition is used for the treatment of allergic diseases or for the treatment of respiratory syncytial viral infection, the composition remains the same. An intended use "for the treatment of respiratory syncytial viral infection" would not change the scope of the claim. Thus, a 102(b) rejection is proper. Note that there was proviso for R^1 is 2 – pyridyl, 3-pyridyl, 6-methyl-2-pyridyl, 2-pyrazinyl or 5-methyl-imidazol-4-yl in claim 1, but not for R^1 = 2-thiazolyl in the claim set submitted on 2/4/2004. Applicants have removed the proviso completely from claim 1.

SOMETHING WHICH IS OLD DOES NOT BECOME PATENTABLE UPON THE DISCOVERY OF A NEW PROPERTY

The claiming of a new use, new function or unknown property, which is inherently present in the prior art, does not necessarily make the claim patentable. In re Best, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977). See also MPEP § 2112.01 with regard to inherency and product-by-process claims and MPEP § 2141.02 with regard to inherency and rejections under 35 U.S.C. 103.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated over Janssens et al. (US Pat No. 4,695,569). Cited reference discloses many benzimidazole derivatives of interest. Specifically, on columns 23-24 (TABLE 2) compounds 61-62, 64, 81-82 and 88 are the same as applicants when applicants Formula (I) has the following substituents:

R^1 = 3-pyridinyl, 2-pyrazinyl and 4-thiazolyl; G = CH_2; Q = is piperidinyl (see choice b-5 where v=2, X^1 = NH or $NCOCH_2CH_3$.

See paragraph 4 for details.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2, 4, 9-10, 13-15 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Janssens et al. (US Pat No. 4,695,569). The reference discloses derivatives of N-heterocyclyl-4-piperidineamines (see formula I). Specifically, on columns 23-24 the reference discloses many compounds of interest (see for example, compounds No. 61 and 81 i.e. R^1 = 3-pyridinyl; compounds No. 62 and 82 i.e. R^1 = 2-pyazinyl, and compounds No. 64 and 88 i.e. R^1 = 4-thiazolyl, which has been excluded from the instant claims, see the last line of claim 2. The instant claims, however, include compounds that are homologues of the reference compounds, i.e., compounds that differ by a $-CH_2$ group (i.e., adding or removing a methyl substituent to or from the reference compounds, e.g., adding a $-CH_2-$ group to the compounds 61, 62, 64, 81, 82 and 64. The reference teaches that the compound is useful as an active antiallergic and antihistaminic agent for the treatment of warm-blooded animals suffering from allergic diseases. One having ordinary skill in the art would have been motivated to prepare the instantly claimed compounds because such structurally

homologous compounds would be expected to possess similar utilities. It has been held that compounds that are structurally homologous to prior art compounds are prima facie obvious, absent a showing of unexpected results. *In re Haas*, 60 USPQ 544 (CCPA 1944); *In re Henze*, 85 USPQ 261 (CCPA 1950). *In re Dillon*, 919 F.2d at 696, 16 USPQ2d at 1904 (Fed. Cir. 1990).

7. Claims 1-2, 4, 8-10, 13-15 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Janssens et al. (US Pat No. 5,360,807). Cited reference discloses many benzimidazole derivatives of interest. Specifically, on columns 24-30 (TABLE 2) compounds 1-6, 8, 12-16, 20-21, 30-31, 35-37 and 42-43 are almost the same as applicants when applicants Formula (I) has the following substituents:

R^1 = 2-methyl-4-thiazolyl or 6-methyl-2-pyridinyl; G = CH_2; Q = is piperidinyl (see choice b-5 where v=2, X^1 = NH, O or CH_2, Y^1 is NH, NCH_3, or N substituted by substituents of variable R^2). For example, compounds such as 1-[(6-methyl-2-pyridinyl)methyl]-2-(4-piperidinyloxy)-1H-Benzimidazole and 1-[(6-methyl-2-pyridinyl)methyl]-2-(4-piperidinylmethyl)-1H-Benzimidazole have been excluded from the instant claims, see the last line of claim 2, but the instant claims, however, include compounds that are homologues of the reference compounds i.e., compounds that differ by a -CH_2 group (i.e., adding or removing a methyl substituent to or from the reference compounds, e.g., adding a –CH_2- group to the pyridyl or thiazolyl substituent. substituent to the species 1-[(6-methyl-2-pyridinyl)methyl]-2-(4-piperdinyloxy)-1H-Benzimidazole. On column 19 (lines 25-27), it has been disclosed that the compounds

of formula (I) are useful in the treatment of broad range of allergic diseases such as allergic rhinitis, allergic conjunctivitis, chronic urticaria, asthma and the like. Respiratory diseases such as asthma are almost similar to what is claimed (i.e. syncytial viral infection). The reference teaches that the compounds are useful as an active antiallergic and antihistaminic agent for the treatment of warm-blooded animals suffering from allergic diseases. One having ordinary skill in the art would have been motivated to prepare the instantly claimed compounds because such structurally homologous compounds would be expected to possess similar utilities. It has been held that compounds that are structurally homologous to prior art compounds are prima facie obvious, absent a showing of unexpected results. *In re Haas*, 60 USPQ 544 (CCPA 1944); *In re Henze*, 85 USPQ 261 (CCPA 1950). *In re Dillon*, 919 F.2d at 696, 16 USPQ2d at 1904 (Fed. Cir. 1990).

Response to arguments

Applicant's argument filed 09/03/2004 has been acknowledged, but it is not persuasive.

Applicants argue by citing case law such as *Richardson-Vicks, Inc v. Upjohn* Co., 122 F. 3d 1476, 1479 (Fed. Cir. 1997), *Graham v. John Deere* Co., 383 U.S. 1, 17-18 (1966), *Interconnect Planning Corp. v Feil*, 774, F.2d 1132, 1143 (Fed. Cir. 1985), *Stratoflex, Inc., v. Aeroquip Corp.*, 713 F.2d 1530, 15354 (Fed. Cir. 1983), and *In re Rouffet*, 149 F.3d 1350, 1359 (Fed. Cir. 1998). By relying on these case laws and also in *In re Grabiak*, 769 F. 2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1983), applicants

argue that a prima facie case was not established. The examiner disagrees with applicant. The prima facie case for the obviousness rejection was established by the office, since the claimed compounds are (1) homologues of the excluded compounds and (2) would be expected to possess similar utilities.

(1) Applicants have excluded from claim 2 e.g. R^1 = 2-pyridyl when G = $-CH_2-$ to overcome a prior art, but said compounds are homologues of the claimed compounds (i.e. when G = bond or G= $-CH_2CH_2-$). Note that benzimidazolyl-bond-2-pyridyl (i.e. G = a bond) or benzimidazolyl-CH_2CH_2-2-pyridyl (i.e. G= $-CH_2CH_2-$) are homologues of the excluded compounds (e.g. 1-[(6-methyl-2-pyridinyl)methyl]-2-(4-piperidinyloxy)-1H-Benzimidazole and 1-[(6-methyl-2-pyridinyl)methyl]-2-(4-piperidinylmethyl)-1H-Benzimidazole). One having ordinary skill in the art would have been motivated to prepare the instantly claimed compounds because such structurally homologous compounds would be expected to possess similar utilities. It has been held that compounds that are structurally homologous to prior art compounds are prima facie obvious, absent a showing of unexpected results. *In re Haas*, 60 USPQ 544 (CCPA 1944); *In re Henze*, 85 USPQ 261 (CCPA 1950). *In re Dillon*, 919 F.2d at 696, 16 USPQ2d at 1904 (Fed. Cir. 1990). Applicants can overcome the rejection by showing that (a) the prior art compounds such as 1-[(6-methyl-2-pyridinyl)methyl]-2-(4-piperidinyloxy)-1H-Benzimidazole and 1-[(6-methyl-2-pyridinyl)methyl]-2-(4-piperidinylmethyl)-1H-Benzimidazole are not useful for the treatment of respiratory syncytial viral infection or (b) their compounds are not useful for the treatment of such

as allergic rhinitis, allergic conjunctivitis, chronic urticaria, asthma and the like, or (3) by simply deleting G = bond, CH_2 and CH_2-CH_2 from claims 1-2.

(2) Since the claimed compounds in claim 2 are homologues of the excluded compounds, one skilled in the art would expect that utilities of the claimed compounds and the excluded compounds to be the same. Note that a pill is a pill, regardless its intended use. The composition in claim 1 is the same composition disclosed in the prior art (Janssens '807). Claim 1 is drawn to a method of manufacturing a composition that is the same as the formulation of a composition as disclosed in Janseens '807 (see column 19, line 22-68 thru column 20, lines 1-19).

Applicants also argue "allergic diseases and respiratory syncytial viral infections are different:

> An ***allergy*** is a state of hypersensitivity induced by exposure to a particular antigen (allergen) resulting in harmful immunologic reactions on subsequent exposures, the term is usually used to refer to hypersensitivity to an environmental antigen (atopic allergy or contact dermatitis) or to drug allergy.
>
> A ***respiratory syncytial viral infection*** is an infection (an invasion and multiplication of microorganisms in body tissues) caused by the RNA virus (a member of the *Paramyxoviridae* family). The virus is a major pathogen in the upper and lower respiratory tract in both infants and younger children. Respiratory syncytial virus manifestations include bronchiolitis, pneumonia and croup."

The examiner disagrees with applicant's argument, since claim is not drawn to a method of treating respiratory syncytial viral infection. There is a method of manufacturing a medicament (composition) with an intended use (i.e. treatment of respiratory syncytial viral infection), but not a method of treating respiratory syncytial viral infection. If applicants intend, a method of treatment, then claim 1 should be written in a method claim language. Thus, the argument based on the definition of allergy and respiratory syncytial viral infection is not relevant to the issue. In addition, applicants are claiming compounds of formula (I') in claim 2 and provided a proviso to exclude certain compounds to overcome a prior art, but these excluded compounds are homologues of the claimed compounds. Since the excluded compounds are homologues to the claimed compounds and also are used for the treatment of allergic diseases, one skilled in the art would have been motivated to prepare the instantly claimed compounds because such structurally homologous compounds would be expected to possess similar utilities.

Applicants also argue "US-A-5,360,807 discloses the use of its compounds in methods of treating warm-blooded animals suffering from allergic diseases, whereas the claimed invention is directed to compounds useful in methods for treating respiratory syncytial viral infections." Applicants further argue: "[t]here is no established connection between the treatment of allergic diseases and the treatment of respiratory syncytial viral infections." The examiner disagrees with applicants. As shown above, claim 1 is not drawn to a method of treating respiratory syncytial viral infections. As far as we know, the prior art compound can also be used for the treatment of respiratory syncytial

viral infections, since it has all the inherent characteristics. Applicants can overcome the rejection by showing that the prior art compound cannot be used for the treatment of respiratory syncytial viral infections, by doing simple tests.

Applicants can overcome the rejection:

i. Amend claim 1 so that G is not a bond, CH_2, or CH_2CH_2

ii. Rewrite claim 1 in a method claim language assuming there is support in the specification

iii. By doing simple test to show that the prior art compounds are not useful for the treatment of respiratory syncytial viral infections (e.g. show that the excluded compound in claim 2 1-[(6-methyl-2-pyridinyl)methyl]-2-(4-piperidinyloxy)-1H-Benzimidazole is not useful for the treatment of respiratory syncytial viral infections).

Since the excluded compounds are homologues of the claimed compounds and composition, the obviousness rejection is proper.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kahsay Habte, Ph. D. whose telephone number is (571) 272-0667. The examiner can normally be reached on M-F (9.00AM- 5:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mukund Shah can be reached on (571) 272-0674, if there is no reply within 24 hours, James Wilson (Acting SPE) can be reached at (571) 272-0661. The fax

phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kahsay Habte, Ph. D.
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KH
October 18, 2004